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TI Phenomenon of the caking of **potash**
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AB During absorption of moisture by calcined **potash**, the change of interplanar distances corresponds to the formation of the crystal hydrate K2CO3.1.5H2O. The x-ray diagram of **potash** samples kept in air revealed diffraction lines indicating the formation of KHCO3, owing to absorption of CO2 and H2O. When moisture is absorbed by calcined **potash**, the latter is quickly transformed into the crystal hydrate, water is bound chem., and the product preserves its free-flowing property and does not cake. This phenomenon continues until all the calcined **potash** is converted to K2CO3.1.5H2O. The water further absorbed is not bound and remains in the **potash** as **hygroscopic** water. From then on, a variation in temp. and moisture of the surrounding air results in a redn. of the free-flowing properties of **potash** and it begins to cake.